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Treatment of Endocervicitis

by

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Of all the specialties in medicine, gynecology lends itself most readily to the application of modern electro-therapy. In fact, I feel that no physician can hope to treat diseases peculiar to women without utilizing this agency to a considerable extent.

Away back in the 80's and 90's, electricity was largely used by gynecologists, surgeons and neurologists. Among the names conspicuous were Rockwell, Newman, Goelet, Lapthorn and Smith in this country and a little later, Sloan of Glasgow, wrote a classic on "The Uses of Electricity in Gynecology". Many more noteworthy names could be mentioned.

About that period owing to the discovery of antiseptics, only slightly antedated by the discovery of anesthetics, and the organization of nursing, a great impetus was given to operative surgery. Nearly all other curative measures were either forgotten or relegated to "limbo", in the mad rush to devise new organizations or perfect technic. Only momentary reflection is necessary to recall that this applied to gynecology in particular. Hardly any measures for treating women other than surgery were referred to in the text books or utilized in practice.

Finally, it began to dawn on some of us that many of the women upon whom we had operated, neglected to get well. In fact, some were actually made worse. That is a sad commentary but there is no use hiding the facts. During the last decade there has been a reaction. Harsh and unnecessary operations are observed in fewer numbers. Now we find many allusions to more conservative and less drastic measures. Among these we may mention a return to electricity. The galvanic current, which is a most valuable agent, has fallen somewhat into disuse, superseded largely by the high frequency current. Both have a commanding place in gynecology. There is nothing so difficult in their application that the technic cannot be acquired by any physician.

A condition frequently met by the physician is leucorrhea and the usual origin of this troublesome and dangerous complaint is endocervicitis. Not unmindful of the possible existence in combination or independent is vaginitis. As we all know, the routine medical treatment of these ailments is usually devoid of favorable results.

Each case should be carefully studied and treated on its own merits. There is no universal treatment for endocervicitis any more than for any other disease. Endocervicitis varies in stages and severity. Beginning with a simple infection of the endocervical ducts and glands, it soon extends to the deeper crypts and surrounding structures, until it is no longer a simple endocervicitis, but a cervicitis with erosions and cystic disease. It should be clear that the management of the initial or intermediary stage should be materially different from the advanced condition. In many years of private practice I have had the most satisfactory results from the use of the galvanic current in the milder and the high frequency coagulating current in the more stubborn cases, especially those with erosion. In those cases complicated with eroded, everted, and cystic cervices, particularly with eversion, I core out the whole diseased cervix with the cutting current.

Following the trend and stimulated by the results obtained by Samuel Sloan of Glasgow in gynecology and Friel of London in the ionization of otitis media, I have made extensive use of ionization of endocervicitis. With the ions in solution we feel that better and more prompt results are obtained than with the solid stick, which produces more of a caustic effect in the immediate vicinity and does not permit the ions to penetrate as deeply into the recesses of the infected racemose glands. With this as with any other form of intracervical treatment, I advise extreme caution in approaching these cases. Remember the close proximity of an infected cervix both anatomically and etiologically to the pelvic viscera. A correct diagnosis of the exact status of the uterus and its appendages must precede any intracervical manipulation. Otherwise an unexpected flareup in the form of severe pain and inflammatory reaction will result.

General Cleansing Preparatory to All Intracervical Manipulations

The vagina and cervix are cleansed with soft soap or tincture of green soap. By the way, these preparations are by far the most satisfactory for general vaginal cleansing. Besides soap and alcohol are admirable antiseptics for various vaginal infections. The cervical canal is cleansed with tincture of green soap applied with a cotton wrapped

probe. If the secretion in the cervical canal is very viscous, I introduce the cotton wrapped probe dipped in powdered sodium perborate (Vince). Soon after the application a pinkish foam rolls out of the os. The cervix must invariably receive a thorough preliminary cleansing and I find this is the best way.

Technic for Cervical Ionization

The patient is placed in the dorsal position, with the knees drawn up and the table tilted so as to considerably elevate the hips. A medium sized glass Ferguson speculum is passed into the vagina and the cervix fitted into the upper end. The os is cleansed as above and dried. A zinc sound is passed into the cervical canal for about one inch. The speculum is half filled with one-half of one per cent of zinc sulphate solution. The zinc rod is then connected with the positive pole of the galvanic unit and the negative pole attached to a wet pad over the lower abdomen or under the buttocks.

The current is slowly turned on and raised until the milliampere meter reads 15 to 20 milliamperes and allowed to run for 10 to 15 minutes. By this time the os and cervical canal will be seen to be coated with a thick white deposit. The current is turned off and the sound removed. A loose vaginal pack is sometimes inserted for 12 hours. If the leucorrhea is profuse, dust a wool and cotton tampon with some mild antiseptic powder. I prefer to use the tampon very sparingly as it prevents free drainage. This treatment is repeated every 5 to 7 days for three or four weeks, in which time, unless the case is of the most aggravated type, I expect the condition to have cleared up. No vaginal douches are allowed and intercourse interdicted during the time of treatment. Only external washing with soap and warm water is recommended. Some backache and low abdominal tenderness is often complained of for a day or two. I usually advise patients to rest during this time and lie down as much as possible. Most of the patients subjected to this treatment have previously complained of vaginal discharge for years and experienced every type of treatment without relief.

The application of the principle of ionization to the cervical canal by means of solid metal electrodes is much easier of manipulation. Solid metal ionization is indicated in the milder chronic types of endocervicitis with not too extensive erosions.

The technic is much the same as with the liquid electrolyte. A bi-valve speculum is introduced and the vagina and cervix are cleansed as directed. The proper sized solid copper or zinc electrode is fitted snugly into the cervical canal. The tip should not protrude beyond the internal os into the uterine cavity. The electrode is then attached to the positive pole. The dispersing pad properly wetted is placed on the abdomen and held in firm contact by a sand bag. The current is then turned on very gradually, otherwise the patient may get a slight shock or a pricking under the pad. If the current is turned on as directed and the patient complains of pricking it is due to imperfect contact or the pad is not wet enough. The current is allowed to run for 10 to 15 minutes and slowly turned off.

The removing of the electrode is a matter of considerable importance. First, we will find the electrode stuck firmly in the cervical canal and the external os surrounded by a greenish deposit of copper. I know operators who advise the forcible pulling of the copper electrode out of the cervix, claiming that this strips off a considerable portion of the diseased endometrium. The process, while theoretically sound, is the cause of great pain and is usually followed by marked peritonism. To get the electrode out easily, reverse the current for a few minutes, which softens the stiffened albuminates and allows the electrode to fall out. When reversing the current one must be careful to do it slowly, otherwise the patient will complain of pain in the pelvis and stinging under the abdominal pad. The negative pole is more irritating than the positive. If pricking is noticed, the patient instinctively lifts the pad. Caution her about this and tell her that if she does anything without notifying the nurse, it should be to make gentle pressure at the point of pricking. Another annoyance sometimes complained of during the active part of the treatment is uterine colic, often severe. This I find to be due to the jamming of the electrode against the internal os, or to too strong a current. These things can be easily rectified. Otherwise, the entire seance can be experienced without discomfort. Outside the physician's own meticulous technic most of the comfort of these treatments is due to an experienced and tactful nurse.

ELECTROCOAGULATION AND CUTTING

ELECTROCOAGULATION means the entire destruction by cooking of the predetermined mass of tissue, and is brought about by the use of the bi-terminal d'Arsonval current. Its application requires two visible electrodes. One, a larger, inactive or dispersive electrode, is placed on any convenient exposed part of the body, and the smaller or active electrode is inserted into the lesion to be influenced. With a sufficient understanding of the nature and strength of the current used, the degree of coagulation can be regulated to a nicety. All this, of course, pre-supposes some experience. Electrocoagulation produces a complete cellular necrosis, with a variable inflammatory reaction in the adjacent tissues. The sterilizing effect of the heat extends much farther than the visible coagulation. There also appears to be a zone around the coagulated area that is lethal to microorganisms and yet the heat is not sufficient to destroy normal tissue cells.

After many attempts I have constructed a very simple and efficient electrode for the

endocervix. It is a long insulated handle with a flexible uterine end, tipped by a bulbous point. I use mostly 3 sizes, approximately 1/8, 1/8, 1/4 of an inch. The tips screw off and on the terminal. The idea is to use a bulb tip to fit the interior of the cervix so as to contact all around. An ordinary uterine sound can be insulated with a small urethral catheter and made to serve the purpose in the average case. Even the urethral bougie can be requisitioned when a larger bulb tip is needed. The cord leading from the machine can be fastened to this active terminal by an appropriate form of clip. For the dispersing electrode, I usually clip the other cord from the machine to the vaginal speculum. This simplifies matters and obviates the necessity of placing a plate on the skin of the patient. The high frequency requires a metal plate, not a wet pad as for galvanic.

Of late, I am using electrodes called the Remington Cervical Coagulation Set, designed along the lines I have been working. They are very satisfactory and offer numerous advantages over the usual type.

Proceed by introducing a bivalve speculum. Cleanse as before mentioned. Introduce into the cervix a cotton wrapped probe saturated with a 10% solution of Cocaine or a 2% solution of Nupercaine. Wait 10 to 15 minutes for anesthesia to be established. The active needle or ball electrode is then inserted high up in the cervical canal and the current turned on until a sizzling noise is heard or felt. The current is then turned off and the electrode moved down slightly, when the process is repeated. This may be done two or three times, depending on the sensitiveness of the patient. If there is little reaction the procedure may be repeated in a week or ten days. After the whole of the endocervix has been gone over, the patient is allowed to go without further attention for a month or six weeks. Then, upon examination, it will be found she has greatly improved.

Go slowly at first. Err on the safe side, if err you must, and most of us must. Practice on a piece of raw beef or liver, until a working familiarity with your machine setting has been obtained. A little more current or longer contact will be needed with the large tips, less with the small tips or the needle terminal, the larger tips cause more pain. Visualize the converging lines of heat concentrating at the point of contact of the active electrode, and contrast them with the comparatively static heat of the ordinary cautery.

When the endocervicitis is pretty well cleared up, it is time to eliminate the erosions. Often by this time, however, the erosions are much less than before, and I have often noticed that this condition, unless the cervix was very hypertrophic and cystic, has all but disappeared. Puncture the cysts with the needle electrode and run a line of electrocoagulation radiating from the external os to the outer rim of the eroded area. Maybe two or three lines will be needed, particularly, if there is much eversion. By knowing how and where to place the coagulation areas, the cervix, however badly deformed and eroded, can be moulded and shaped into a normal appearance. It is a great temptation to begin with the erosions. Do not do it for you will thereby narrow the outer cervical opening, prevent drainage, and defeat your purpose in many instances.

As before stated, most of this work is done in our office surgery. If the treatment has been rather heavy, the patient should be admonished to remain quiet and lie down most of the time, for a day or two, otherwise she will have considerable low abdominal pain and an aggravation of the backache. The vaginal discharge will be increased for a few days, and it will likely be tinged with blood. Rarely is it enough to alarm the patient, but occasionally there is considerable bleeding, so it is well to inform her on this point.

Once in a while a case may be so aggravated as to require hospitalization, or your patient may be in a hurry to get through, or she may be too nervous to stand repeated office treatments. This class of case is sent to the hospital and under anesthesia the entire endocervix is cored out by the cutting current, much after the style of the Strumdorf. I call this the Electric Strumdorf technic. There is surprisingly little bleeding. If there is a "spurter", it is touched by the coagulating current electrode, or the artery picked up by a hemostat and the current run down the forceps, thus sealing the vessel by coagulation. Oozing surfaces may be gone over by the ball-tipped coagulating electrode.

The wound is packed with iodoform gauze and left for 3 or 4 days, and the surfaces allowed to granulate. If the manipulations are correctly done, the result is almost perfect and there is little narrowing of the cervical canal. This I have verified in many cases where the operation has been done a year or more. Scar tissue formation is proverbially thin and elastic after electrocoagulation. If there should be evidence of cervical atresia it is readily overcome by gradual dilation. Those who use the galvanic current are masters of such a situation, for the introduction of a cervical electrode connected to the negative pole will soften up any cicatricial narrowing that may exist.

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